

CLAIMS

What is claimed is:

1. A method of extracting the lipophilic components from plants of the family Euphorbaciae, comprising:

5 combining plant material from the family Euphorbaciae with an organic solvent;

agitating the combination;

settling the combination into distinct phases to resolve a layer substantially comprised of hydrophilic constituents and an organic layer substantially comprised 10 of lipophilic constituents; and

evaporating the organic layer to resolve the lipophilic constituents.

2. The method of claim 1 wherein the plant material is either in viscous latex or at least partially dried latex from the family Euphorbaciae.

15 3. The method of claim 1 wherein the plant is of the genus Croton.

4. The method of claim 1 wherein the organic solvent is selected from the group consisting of ethyl acetate, isopropanol and chloroform/Methanol mixture.

20 5. The method of claim 1 further comprising,

adding a drying agent to the settled organic layer, prior to the step of evaporating the organic layer, to further precipitate any remaining hydrophilic constituents, and filtering the organic layer to resolve the lipophilic constituents.

5 6. The method in claim 5 wherein the drying agent selected from the group consisting of, magnesium sulfate and sodium sulfate.

10 7. The method in claim 6 wherein the drying agent is magnesium sulfate and the amount added per liter of organic layer is between about five hundred milligrams (500 mg) to five grams (5 g) per liter.

15 8. The method in claim 5 wherein, after the step of filtering the organic layer, the organic layer at a concentration of one milligram per milliliter (1mg/mL) of 50% (v/v) ethanol/water has an absorbance of about 0.120 Abs Units in the wavelength range between about 390 nm and about 430 nm, relative to an absorbency of about 515 Abs Units within the same wavelength range.

9. The method of claim 5 wherein the proanthocyanidin components are reduced by at least about 90% relative to the parent latex.

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10. The method of claim 1 wherein the step of evaporating the precipitate to resolve the hydrophilic constituents is selected from the group of evaporating method consisting of evaporation, spray drying, freeze drying, or vacuum drying.

11. An extract of plant material from family Euphorbaciae at a concentration of 1mg/mL of 50% (v/v) ethanol/water having reduced relative UV absorbency between the range of 390 nm and 430 nm.

5 12. The extract in claim 11 wherein the relative UV absorbency between the range of 390 nm and 430 nm is reduced by a factor of about at least 4.3 relative to the absorbency of the unextracted plant material from family Euphorbaciae

10 13. The extract in claim 12 wherein the UV absorbency between the range of 390 nm and 430 nm is about 0.110 Abs Units relative to about 0.515 Abs Units for the unextracted plant material.

15 14. An extract of plant material from family Euphorbaciae at a concentration of about 1 mg/mL of carrier and having reduced UV absorbency in the range of 390nm to 430nm relative to the same concentration of unextracted plant material in the same carrier.

15. The extract in claim 14 wherein the carrier is aloe barbadensis.

20 16. The extract in claim 14 wherein the UV absorbency between the range of 390 nm and 430 nm is about 0.010 Abs Units relative to about 0.030 Abs Units for the unextracted plant material.

17. The extract in claim 11 comprising,

a pharmaceutical dosage unit composed of an extract of family Euphorbaciae with reduced proanthocyanidin content and selective cytotoxicity to cancerous cells.

5 18. The extract in claim 11 comprising,

a pharmaceutical dosage unit composed of an extract of family Euphorbaciae that inhibits gastrointestinal distress manifested as emesis.

19. The extract in claim 11 comprising,

10 a pharmaceutical dosage unit composed of an extract of family Euphorbaciae that inhibits the activation of sensory afferent nerves.